

## INTERNATIONAL SEARCH REPORT

PCT/US2004/033436

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 F16K11/074 F16K3/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 F16K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 701 934 A (KURAN CHRISTOPHER G ET AL) 30 December 1997 (1997-12-30) column 3, line 21 - column 8, line 39; figures 1-8 ----- DE 37 20 207 A (PIEMONTESE RADIATORI) 23 December 1987 (1987-12-23) column 4, line 54 - column 8, line 16; figures 1-7 -----	1,7,8
X	EP 1 293 712 A (SOLDI BARBARA) 19 March 2003 (2003-03-19) figures 1,2 -----	1
A	EP 1 342 996 A (TECHEM DEV GMBH) 10 September 2003 (2003-09-10) figures 1-5 -----	1
		-/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## \* Special categories of cited documents :

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- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

20 January 2005

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 771 980 A (GALATRON SRL) 7 May 1997 (1997-05-07) figures 1-14 -----	1
A	EP 1 096 189 A (NGK SPARK PLUG CO) 2 May 2001 (2001-05-02) figures 1-8d -----	1

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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)		Publication date
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